

## CLAIMS

1. A stairlift provided with a rail for mounting along a stairway, a platform which is movably mounted on the rail and a drive mechanism for moving the platform along the rail along the stairway, wherein the platform is mounted so as to be movable about a vertical shaft relative to the rail and  
5 the stairlift comprises a drive arranged to rotate an angle of the platform relative to the rail depending on the position of the platform along the rail during movement of the platform along the rail.

2. A stairlift according to claim 1, wherein the rail comprises a virtually straight part and a bend, and the drive is arranged to rotate the platform, at  
10 positions in the bend, at an orientation or orientations which make a smaller angle with a part of the rail going downstairs than an orientation of the platform in the straight part.

3. A stairlift according to claim 2, mounted in a stairwell, at such a height above the stairway that a bottom side of the platform does not  
15 contact the steps of the stairway during the movement along the rail, wherein the height is less than a height which would be needed for not contacting the steps in the bend if, in the bend, the platform would be kept at an orientation of the platform in the straight part.

4. A stairlift according to claim 1, mounted in a stairwell with a wider  
20 part and narrower part, wherein the stairwell is insufficiently wide to let the platform rotate through, and wherein the drive is arranged to rotate the platform, at a position preceding the entering of the narrow part, at an angle from where the platform can be rotated to a position for getting on and off in the narrower part without obstruction from walls in the stairwell.

25 5. A stairlift according to claim 4, wherein the stairwell comprises a bend with narrow parts on both sides, wherein the stairwell is insufficiently wide to let the platform rotate through, and wherein the drive is arranged to

make the platform rotate between angles from which the platform can be rotated to a position for getting on and off in the respective narrow parts without obstruction from walls of the stairwell.

6. A stairlift according to claim 1, wherein the rail is mounted in a stairwell such that, if the platform stood still at any fixed angle about the vertical shaft during movement along the rail, the platform would hit a step of the stairway or a wall of the stairwell at any point along the rail, and wherein the drive is arranged to change said angle of the platform relative to the rail en route along the rail such that this prevents hitting steps and/or the wall.

7. A stairlift according to any one of the preceding claims, wherein the drive is provided with a position sensor for detection of a position of the platform along the rail, memory means comprising information about a desired angle setting as a function of the position, and a motor, wherein the sensor is coupled to the memory means for reading out information about the desired angle setting depending on sensor information, and the memory means are coupled to the motor for controlling the angle depending on the read-out information about the desired angle setting.

8. A stairlift according to any one of the preceding claims, wherein the drive mechanism to move the platform along the rail along the stairway is coupled to the drive for the angle about the vertical shaft and the drive for the angle about the vertical shaft is arranged to set the angle depending on a progress of the drive mechanism.

9. A method for driving a platform along a rail mounted in a stairwell, which comprises the step of automatically rotating the platform relative to the rail about a vertical shaft during movement of the platform along the rail, at angles depending on a position of the platform along the rail.

10. A method according to claim 9, wherein the rail comprises a virtually straight part and a bend, and the platform is rotated, at positions in the bend, at an orientation or orientations which make a smaller angle with a

part of the rail going downstairs than an orientation of the platform in the straight part.

11. A method according to claim 9, wherein the rail is mounted in a stairwell with a wider part and narrower part, wherein the stairwell is
- 5 insufficiently wide to let the platform rotate through, and wherein the platform is rotated, at a position preceding the entering of the narrow part, at an angle from where the platform can be rotated to a position for getting on and off in the narrower part without obstruction from walls in the stairwell.